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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/021,928	12/13/2001	Mark Allan Hoffman	72543	4991
7590	02/25/2004		EXAMINER GLENN, KIMBERLY E	
Perry J. Hoffman, Esq. Michael Best & Friedrich LLC 401 North Michigan Ave., Suite 1900 Chicago, IL 60611			ART UNIT	PAPER NUMBER
			2817	

DATE MAILED: 02/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/021,928

Applicant(s)

HOFFMAN, MARK ALLAN

Examiner

Kimberly E Glenn

Art Unit

2817

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 3-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the surface mount pads in the embodiment of figures 11-13C as recited in claim 7 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Examiner acknowledges support for the limitation concerning the surface mount pads can be found on page 13, lines 1-3. However, examiner cannot a reference numeral that corresponds to the surface mount pads in any of the figures. All claimed features must be shown in the drawings

Specification

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The limitations of claims 7-9 including surface mount connector pads and potting material are not described with respect to the embodiment of figures 11-13C.

Examiner acknowledges proper antecedent bases for the surface mount connector pads with regards to the embodiment drawn to figures 7 and 8 and proper antecedent basis for the potting material with regards to the embodiments drawn to figures 3B and 3c but the

specification fails to provide proper antecedent basis with regards to the embodiment drawn to figures 11-13C, which are disclosed in the limitations of claims 7-9.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,3-16 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over

*Hoffman

United States Patent No. 6,084,487 (cited by the applicant) in view of Shult United States Patent No. 3,621,484 and Suppelsa et al United States Patent No. 5,591,364. (of record)

*It should be noted that claims 1-16 are not fully supported by the disclosure of the earlier filed U.S. applications (09/603,369 or 09/200,214), Accordingly, claims 1-16 have an effective filing date equal to 12/13/2001, which is more than one year after the publication date of United States Patent No. 6,084,487 (i.e. 7/4/2000). Therefore, United States Patent No. 6,084,487 is available as prior art for claims 1-16 (see MPEP 706.02).

The Hoffman reference discloses elements of the claimed high frequency filter in figures 1-10 including the method of designing the filter using the Internet (see col. 8, lines 1-11). The reference further discloses that the tap or coupler housing 44 (see figure 2) is removable (see col.

5, lines 15-20) but does not disclose the mechanical means for facilitating the mechanical connections.

The Shult reference discloses screws 46, 48 that are removable and hold the coil in place (see figure 3). Also, the Suppelsa et al. reference discloses that snap-fit joints including a stud (i.e. "nub") 14 fits into a depression 16 as is shown in figure 1. The reference further discloses that the snap-fit joints are equivalent to screws but are rapid and economical compared to screws (see col. 2, lines 50-68).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time of the invention to have added mechanical fittings on the removable tap housing in the filter of Hoffman as taught by Shult because, as the Hoffman reference is silent on the specific means for making the tap/coupler housing removable, any art-recognized equivalent means such as screw/hole fittings or snap-fit would have been usable therewith.

Claims 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu JP 03-174801 in view of Guglielmi United States Patent No. 5,557,530 in view of the web pages titled "Helical resonators page of the WB6BLD site".

The Shimizu reference discloses in figure 1 a helical filter that includes first and second coils 1 and 2 with a generally open end with an "identified" signal coupler 6 (which is inherently removable because it is shown as being physically separate in figure 1 with respect to claim 18) and a closed end opposite thereto. However, the reference does not disclose (at least in English) the steps of accessing a computer program over the Internet.

The Guglielmi reference discloses designing a filter using a computer program by providing the filter characteristics as inputs (see col. 4, lines 62-68 and col. 6, lines 43-50) that allows easy design of filters (see col. 6, lines 36-50).

The web pages “Helical resonator page of WB6BLD site” shows that is well known to access filter design program via the internet.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time of the invention to have designed the filter of Shimizu using a computer as taught by Gugliemi because such a modification would have advantageously facilitated the design. Additionally, the use of the Internet would have been considered an obvious art-recognized equivalent substitution of accessing the program to accessing the program locally, as shown the by web page. The motivation for providing or accessing the program via the internet would have been to provide the advantageous benefit of easy accesses and infinite distribution. With respect to the choice of tap or loop coupling, it should be noted that each of these types of coupling are conventionally used in helical filters. Therefore, use of one or the other would have been considered a mere substitution of art-recognized equivalent couplings.

Response to Arguments

Applicant's arguments filed 11/4/03 have been fully considered but they are not persuasive. Applicant states that support for mechanical fitting can found in column 6, lines 33 and lines 61-67 and column 7; lines 1-11 of Hoffman US Patent 6,084,487. Hoffman states in line 61-67 that “The tap housing 44 may include a metallic coupling, such as a BeCu socket having a brushing action, for electrically connecting the tap coils with the helical resonator coils at the series connection between the tap coil and the helical resonator respectively, while providing a good electrical contact for the tap connection.” Applicant discloses on page 15; line 9 and in figures 11-13 of the present application, an alternate preferred embodiment which

discloses a socketless solderless tap coil connection to the main coil in the helical filter. Applicant then refers to figure 12A and 12B and states "...the mechanical fitting of the removable tap housing between the contact leg 104 and the main coil wire 107 to provide assembly side views thereof for releasable engagement...". The mechanical fitting refers to a socketless embodiment of the present applicant. Therefore, the limitation regarding the mechanical fitting is not supported by the disclosure of the Hoffman US Patent 6,084,487.

With regards to applicant arguments concerning the Shult and Suppelsa et al references. Applicant's argument concerning Suppelsa et al being concerned with securing joints of thermoplastic material is not persuasive. Both Shult and Suppelsa et al disclose well-known mechanical means for facilitating the mechanical connection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimberly E Glenn whose telephone number is (571)-272-1761. The examiner can normally be reached on Monday-Friday 7:30 to 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pascal can be reached on (571)-272-1769. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kimberly E Glenn
Examiner
Art Unit 2817

keg

A handwritten signature in black ink that reads "Benny Lee". The "B" is large and loops around the "enny", and "Lee" is written in a cursive style.

BENNY T. LEE
PRIMARY EXAMINER
ART UNIT 2817